

Amendment to the Specification:

Please delete the present Abstract and replace with the following paragraph (marked with deletions indicated by strikethrough and insertions by underlining.)

A chimeric Polynucleotides encoding chimeric or humanized LL2 monoclonal antibodies (mAbs) or fragments thereof are antibody is described in which the ~~complementarily determining~~ regions (CDRs) of the light and heavy chains of the murine LL2 anti-B-lymphoma, anti-leukemia cell monoclonal antibody have has been recombinantly joined to the human *kappa* and IgG₁ constant region domains, respectively, which has reduced tendency of eliciting human anti-mouse (HAMA) response in humans compared to the murine LL2 mAb retains the immunospecificity and B-cell lymphoma and leukemia cell internalization capacity of the parental murine LL2 monoclonal antibody, and which has the potential of exhibiting reduced human anti-mouse antibody production activity. The A humanized LL2 monoclonal antibody further comprises is described in which the CDRs of the light and heavy chains have been recombinantly joined to a framework sequence of human light and heavy chains variable regions, respectively, and subsequently linked to human *kappa* and IgG₁ constant region domains, respectively, which retains the immunospecificity and B-lymphoma and leukemia cell internalization capacities of the parental murine and chimeric LL2 monoclonal antibodies, and which has the potential for exhibiting reduced human anti-mouse antibody production activity. Vectors for producing recombinant chimeric and humanized chimeric monoclonal antibodies are provided. Isolate DNAs encoding the amino acid sequences of the LL2 variable light and heavy chain and CDR framework regions are described. Conjugates of chimeric and humanized chimeric LL2 antibodies with cytotoxic agents or labels find use in therapy and diagnosis of B-cell lymphomas and leukemias.